Markings to Show Changes Made," showing the current amendments to the claims is attached hereto.

Please amend the above-identified application as follows:

IN THE CLAIMS:

Please replace the previous version of the claims with the following clean version, wherein claims 1, 3, and 4 incorporate new amendments thereto and claim 2 has been cancelled.

D1

1. (Three Times Amended) An actuator comprising:

a plurality of displacing devices for generating displacements;

a compound member, connected to the displacing devices, for compounding displacements of the displacing devices;

a base member for holding base ends of the displacing devices to which the compound member is not connected;

a pressing member for pressing the compound member to an object to be driven; and

a driver for resonantly driving the displacing devices so as to move the compound member along an elliptic or a circular trail;

wherein the displacing devices have a first natural frequency in a first natural vibration mode, in which the displacing devices are resonantly vibrated in the same phase, that substantially coincides with a second natural frequency in a second natural vibration mode, in which the displacing devices are resonantly vibrated in the opposite phase.

D2

3. (Twice Amended) An actuator in accordance with claim 1, wherein a mass of the compound member is designated by a symbol "M", a length of each displacing device is designated by a symbol "L", a height of each displacing device is designated by a symbol "H", and a mass of each displacing device is designated by a symbol "m", and the equation

$$M=(L^2/H^2-0.88)m/2.63$$

is satisfied.

4. (Twice Amended) An actuator in accordance with claim 1, wherein a mass of the compound member is designated by a symbol "M_c", a mass of each displacing device is designated by a symbol "m", a spring constant of each displacing device in the expansive deformation is designated by a symbol "k_1", a spring constant of each displacing device in the bending deformation is designated by a symbol "k_3", a moment of inertia of the base member is designated by a symbol "I_z", a rotation radius of the base member is designated by a symbol "R", and an equivalent mass of the base member converted to a cantilever is designated by a symbol "M_b'", and the equations

$(k_1/(1-p))/(M_c+(1-p)m/3)=(k_1/(1-q)+k_3)/(M_c+(1-q)m/3+m/2)$

$p=(M_c+m/3)/(M_c+I_z/R^2+2m/3)$

$q=(M_c+5m/6)/(M_c+M_b'+7m/6)$

are satisfied.

D2 cont.

5. An actuator in accordance with claim 1, wherein at least one of the plurality of displacing devices includes an elastic member as a part thereof.

6. An actuator comprising:

a first displacing device;

a second displacing device;

a compound member connected to top ends of the first displacing device and the second displacing device and for compounding displacements of the first displacing device and the second displacing device; and

a driver for resonantly driving the displacing devices so as to move the compound member along an elliptic or a circular trail,

wherein the driver drives the first displacing device and the second displacing device by driving signals respectively having a frequency that is between a first frequency and a second frequency,

wherein the first frequency is a higher one of a resonant frequency of the first displacing device and a resonant frequency of the second displacing device, and

wherein the second frequency is a lower one of an antiresonant frequency of the first displacing device and an antiresonant frequency of the second displacing device.

7. An actuator comprising:

a first displacing device;

a second displacing device;

a compound member connected to top ends of the first displacing device and the second displacing device and for compounding displacements of the first displacing device and the second displacing device; and

a driver for resonantly driving the displacing devices so as to move the compound

member along an elliptic or a circular trail,

wherein the driver drives the first displacing device and the second displacing device by using a first displacing device driving signal and a second displacing device driving signal, respectively, each of the driving signals having a frequency included in an overlapped region of a first frequency band and a second frequency band,

D2 cont.

wherein the first frequency band is defined as a region between a resonance frequency of the first displacing device and an antiresonance frequency of the first displacing device in which a phase difference between a phase of a voltage of the first displacing device driving signal and a phase of a current flowing in the first displacing device is substantially constant,

wherein the second frequency band is defined as a region between a resonance frequency of the second displacing device and an antiresonance frequency of the second displacing device in which a phase difference between a phase of a voltage of the second displacing device driving signal and a phase of a current flowing in the second displacing device is substantially constant,

wherein the frequency of the driving signals is a value at the center between a first frequency and a second frequency,

wherein the first frequency is a smaller one of the resonance frequencies of the first displacing device and the second displacing device, and

wherein the second frequency is a smaller one of the antiresonance frequencies of the first displacing device and the second displacing device.

8. An actuator in accordance with claim 6, wherein the phase of the driving signal for driving the first displacing device has a phase difference with respect to the driving signal for driving the second displacing device.

9. An actuator comprising:

a first displacing device;

a second displacing device;

a compound member connected to top ends of the first displacing device and the second displacing device and for compounding displacements of the first displacing device

D2 cont.

and the second displacing device;

a driver for resonantly driving the displacing devices so as to move the compound member along an elliptic or a circular trail, and

current sensors respectively for sensing currents flowing in the first displacing device and the second displacing device,

wherein the driver drives the first displacing device and the second displacing device by using a first displacing device driving signal and a second displacing device driving signal, respectively, each of the driving signals having a frequency included in an overlapped region of a first frequency band and a second frequency band,

wherein the first frequency band is defined as a region between a resonance frequency of the first displacing device and an antiresonance frequency of the first displacing device in which a phase difference between a phase of a voltage of the first displacing device driving signal and a phase of a current flowing in the first displacing device is substantially constant, and

wherein the second frequency band is defined as a region between a resonance frequency of the second displacing device and an antiresonance frequency of the second displacing device in which a phase difference between a phase of a voltage of the second displacing device driving signal and a phase of a current flowing in the second displacing device is substantially constant.

11. An actuator in accordance with claim 12, wherein a phase difference is provided between the driving signals in a manner so that a current flowing in the first displacing device has a predetermined phase difference with respect to a current flowing in the second displacing device.

12. An actuator comprising:

a first displacing device;

a second displacing device;

a compound member connected to top ends of the first displacing device and the second displacing device and for compounding displacements of the first displacing device and the second displacing device;

a driver for resonantly driving the displacing devices so as to move the compound member along an elliptic or a circular trail; and

D2 Cont.

current sensors respectively for sensing currents flowing in the first displacing device and the second displacing device,

wherein the driver drives the first displacing device and the second displacing device by driving signals respectively having a frequency included in a frequency band in the vicinity of resonance frequencies of the first displacing device and the second displacing device at which a displacement of the first displacing device is substantially the same as that of the second displacing device.

13. A method for driving an actuator which comprises a first displacing device, a second displacing device, and a compound member connected to top ends of the first displacing device and the second displacing device for compounding displacements of the first displacing device and the second displacing device, said method comprising the step of:

driving each of the first displacing device and the second displacing device in a manner so as to move the compound member along an elliptic or a circular trail by using a first displacing device driving signal and a second displacing device driving signal, respectively, each of the driving signals having a frequency that is between a first frequency and a second frequency,

wherein the first frequency is a higher one of a resonant frequency of the first displacing device and a resonant frequency of the second displacing device, and

wherein the second frequency is a lower one of an antiresonant frequency of the first displacing device and an antiresonant frequency of the second displacing device.

14. A method for driving an actuator which comprises a first displacing device, a second displacing device, and a compound member connected to top ends of the first displacing device and the second displacing device for compounding displacements of the first displacing device and the second displacing device, said method comprising the step of:

driving each of the first displacing device and the second displacing device in a

manner so as to move the compound member along an elliptic or a circular trail by using a first displacing device driving signal and a second displacing device driving signal, respectively, each of the driving signals having a frequency included in an overlapped region of a first frequency band and a second frequency band,

wherein the first frequency band is defined as a region between a resonance frequency of the first displacing device and an antiresonance frequency of the first displacing device in which a phase difference between a phase of a voltage of the first displacing device driving signal and a phase of a current flowing in the first displacing device is substantially constant,

wherein the second frequency band is defined as a region between a resonance frequency of the second displacing device and an antiresonance frequency of the second displacing device in which a phase difference between a phase of a voltage of the second displacing device driving signal and a phase of a current flowing in the second displacing device is substantially constant,

wherein the frequency of the driving signals is a value at a center between a first frequency and a second frequency,

wherein the first frequency is a smaller one of the resonance frequencies of the first displacing device and the second displacing device, and

wherein the second frequency is a smaller one of the antiresonance frequencies of the first displacing device and the second displacing device.

15. A method for driving the actuator in accordance with claim 13, wherein the phase of the first displacing device driving signal has a phase difference with respect to the second displacing device driving signal.

16. A method for driving an actuator which comprises a first displacing device, a second displacing device, and a compound member connected to top ends of the first displacing device and the second displacing device for compounding displacements of the first displacing device and the second displacing device, said method comprising the step of:

driving each of the first displacing device and the second displacing device in a

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manner so as to move the compound member along an elliptic or a circular trail by using a first displacing device driving signal and a second displacing device driving signal, respectively, each of the driving signals having a frequency included in a frequency band in the vicinity of resonance frequencies of the first displacing device and the second displacing device at which a displacement of the first displacing device is substantially the same as that of the second displacing device; and

sensing a current flowing through the first displacing device and a current flowing through the second displacing device.

17. A method for driving the actuator in accordance with claim 16, further comprising the step of adjusting a phase difference between the first displacing device driving signal and the second displacing device driving signal so that the current flowing in the first displacing device has a predetermined phase difference with respect to the current flowing in the second displacing device.